

§ 180.207

49 CFR Ch. I (10–1–12 Edition)

where use of a specification packaging is required.

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§ 180.207 Requirements for requalification of UN pressure receptacles.

(a) *General.* (1) Each UN pressure receptacle used for the transportation of hazardous materials must conform to the requirements prescribed in paragraphs (a), (b) and (d) in § 180.205.

(2) No pressure receptacle due for requalification may be filled with a hazardous material and offered for transportation in commerce unless that pressure receptacle has been successfully requalified and marked in accordance with this subpart. A pressure receptacle may be requalified at any time during or before the month and year that the requalification is due. However, a pressure receptacle filled before the requalification becomes due may remain in service until it is emptied.

(3) No person may requalify a UN composite pressure receptacle for continued use beyond its 15-years authorized service life. A pressure receptacle with a specified service life may not be refilled and offered for transportation after its authorized service life has expired unless approval has been obtained in writing from the Associate Administrator.

(b) *Periodic requalification of UN pressure receptacles.* (1) Each pressure receptacle that is successfully requalified in accordance with the requirements specified in this section must be marked in accordance with § 180.213. The requalification results must be recorded in accordance § 180.215.

(2) Each pressure receptacle that fails requalification must be rejected or condemned in accordance with the applicable ISO requalification standard.

(c) *Requalification interval.* Each UN pressure receptacle that becomes due for periodic requalification must be requalified at the interval specified in the following table:

TABLE 1—REQUALIFICATION INTERVALS OF UN PRESSURE RECEPTACLES

Interval (years)	UN pressure receptacles/hazardous materials
10	Pressure receptacles for all hazardous materials except as noted below (also for dissolved acetylene, see paragraph (d)(3) of this section):
5	Composite pressure receptacles.
5	Metal hydride storage systems
5	Pressure receptacles used for:
	All Division 2.3 materials.
	UN1013, Carbon dioxide.
	UN1043, Fertilizer ammoniating solution with free ammonia.
	UN1051, Hydrogen cyanide, stabilized containing less than 3% water.
	UN1052, Hydrogen fluoride, anhydrous.
	UN1745, Bromine pentafluoride.
	UN1746, Bromine trifluoride.
	UN2073, Ammonia solution.
	UN2495, Iodine pentafluoride.
	UN2983, Ethylene Oxide and Propylene oxide mixture, not more than 30% ethylene oxide.

(d) *Requalification procedures.* Each UN pressure receptacle that becomes due for requalification must be requalified at the interval prescribed in paragraph (c) of this section and in accordance with the procedures contained in the following standard, as applicable. When a pressure test is performed on a UN pressure receptacle, the test must be a water jacket volumetric expansion test suitable for the determination of the cylinder expansion or a hydraulic

proof pressure test. The test equipment must conform to the accuracy requirements in § 180.205(g). Alternative methods (e.g., acoustic emission) or requalification procedures may be performed if prior approval has been obtained in writing from the Associate Administrator.

(1) Seamless steel: Each seamless steel UN pressure receptacle, including MEGC's pressure receptacles, must be requalified in accordance with ISO 6406

(IBR, *see* §171.7 of this subchapter). However, UN cylinders with a tensile strength greater than or equal to 950 MPa must be requalified by ultrasonic examination in accordance with ISO 6406.

(2) Seamless UN aluminum: Each seamless aluminum UN pressure receptacle must be requalified in accordance with ISO 10461 (IBR, *see* §171.7 of this subchapter).

(3) Dissolved acetylene UN cylinders: Each dissolved acetylene cylinder must be requalified in accordance with ISO 10462 (IBR, *see* §171.7 of this subchapter). The porous mass and the shell must be requalified no sooner than 3 years, 6 months, from the date of manufacture. Thereafter, subsequent requalifications of the porous mass and

shell must be performed at least once every ten years.

(4) Composite UN cylinders: Each composite cylinder must be inspected and tested in accordance with ISO 11623 (IBR, *see* §171.7 of this subchapter).

[71 FR 33894, June 12, 2006, as amended at 71 FR 54397, Sept. 14, 2006; 76 FR 3389, Jan. 19, 2011]

§ 180.209 Requirements for requalification of specification cylinders.

(a) *Periodic qualification of cylinders.* Each specification cylinder that becomes due for periodic requalification, as specified in the following table, must be requalified and marked in conformance with the requirements of this subpart. Requalification records must be maintained in accordance with § 180.215. Table 1 follows:

TABLE 1—REQUALIFICATION OF CYLINDERS ¹

Specification under which cylinder was made	Minimum test pressure (psig) ²	Requalification period (years)
DOT 3	3000 psig	5
DOT 3A, 3AA	5/3 times service pressure, except non-corrosive service (<i>see</i> § 180.209(g)).	5, 10, or 12 (<i>see</i> § 180.209(b), (f), (h), and (j))
DOT 3AL	5/3 times service pressure	5 or 12 (<i>see</i> § 180.209(j) and § 180.209(m) ³).
DOT 3AX, 3AAX	5/3 times service pressure	5
3B, 3BN	2 times service pressure (<i>see</i> § 180.209(g)).	5 or 10 (<i>see</i> § 180.209(f))
3E	Test not required.	
3HT	5/3 times service pressure	3 (<i>see</i> §§ 180.209(k) and 180.213(c))
3T	5/3 times service pressure	5
4AA480	2 times service pressure (<i>see</i> § 180.209(g)).	5 or 10 (<i>see</i> § 180.209(h))
4B, 4BA, 4BW, 4B-240ET	2 times service pressure, except non-corrosive service (<i>see</i> § 180.209(g)).	5, 10, or 12 (<i>see</i> § 180.209(e), (f), and (j))
4D, 4DA, 4DS	2 times service	5
DOT 4E	2 times service pressure, except non-corrosive (<i>see</i> § 180.209(g)).	5
4L	Test not required.	
8, 8AL		10 or 20 (<i>see</i> § 180.209(i))
Exemption or special permit cylinder	See current exemption or special permit	See current exemption or special permit
Foreign cylinder (<i>see</i> § 173.301(j) of this subchapter for restrictions on use).	As marked on cylinder, but not less than % of any service or working pressure marking.	5 (<i>see</i> §§ 180.209(l) and 180.213(d)(2))

¹ Any cylinder not exceeding 2 inches outside diameter and less than 2 feet in length is excepted from volumetric expansion test.

² For cylinders not marked with a service pressure, *see* § 173.301a(b) of this subchapter.

(b) *DOT 3A or 3AA cylinders.* (1) A cylinder conforming to specification DOT 3A or 3AA with a water capacity of 56.7 kg (125 lb) or less that is removed from any cluster, bank, group, rack, or vehicle each time it is filled, may be requalified every ten years instead of every five years, provided the cylinder conforms to all of the following conditions:

(i) The cylinder was manufactured after December 31, 1945.

(ii) The cylinder is used exclusively for air; argon; cyclopropane; ethylene; helium; hydrogen; krypton; neon; nitrogen; nitrous oxide; oxygen; sulfur hexafluoride; xenon; chlorinated hydrocarbons, fluorinated hydrocarbons, liquefied hydrocarbons, and mixtures thereof that are commercially free